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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/689,857	10/13/2000	Yves T'Joens	Q60899	6616

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EXAMINER	
WONG, BLANCHE	

ART UNIT	PAPER NUMBER
2667	7

DATE MAILED: 05/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/689,857	T'JOENS, YVES	
	Examiner	Art Unit	
	Blanche Wong	2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 October 2000*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *#5, Oct 13, 00*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed October 13, 2000, fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each U.S. and foreign patent; each publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Applicant is requested to provide a copy of pages 159-179 of Black's book.

Specification

2. Examiner noted that part of the preliminary amendment, filed on October 13, 2000, cannot be found in the application disclose. According to the prelimary amendment, Examiner was instructed to "delete the paragraph in its entirety and insert..." on page 3, lns. 3-10. Lns. 3-10 is not a paragraph and thus unfound. Therefore, pg. 3, ln. 3-10 of the preliminary amendment will not be considered.

3. The disclosure is objected to because of the following informalities: No reference to claims should be in the specification. Although some effect to remove references of claims in the disclosure, many others remain. For example, on p. 2 of the specification, claim 1 can be found on ln. 32-33 and claim 2 can be found on ln. 34; on p. 3, claim 3 can be found on ln. 1, claims 4 and 5 on ln. 3, and claim 6 on ln. 5. Examiner suggests

a thorough review of the application in its entirety in order to remove all references to claims.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. **Claims 1,4-6,8-9** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Examples of unclear or vague word or wording in claim 1 are as follow:

ln. 10, -- each –; ln. 14, – underlying – (whether it pertains to higher or lower network level); ln. 32, -- closer –; ln. 35, "wider"; ln. 36, -- a network node – (whether it is a node of higher or lower network level).

Claims 4-6 have similar problems identified in claim 1.

6. There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites the limitations "the connection data" in ln. 24-25 and ln. 40, "the path information" in ln. 25-26, "the data packets" in ln. 26, "each data bank" in ln. 30-31, "at least one additional data bank" in ln. 33-34, "means" in ln. 39, "this additional data bank" in ln. 40-41.

Claim 8 recites the limitations "the region" in ln. 2 and "that group" in ln. 3.

Claim 9 recites the limitations "at least on additional data bank" in ln. 2 and "each group" in ln. 3.

7. **Claims 1-9** contain numerous antecedent basis problems and unclear recitations apparently resulting from translation. The intended limitations of these claims therefore cannot be distinguished with accuracy. Applicant is advised to carefully review the claim for full compliance with 35 U.S.C. 112 second paragraph.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. **Claims 1-9** are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Chen et al. (U.S. Pat No. 5,831,975).

With regard to claims 1 and 2, Chen discloses each data bank (it is inherent in PNNI that each node bundles its state information in one or more PNNI topology state elements, or PNNI routing information, which are subsequently flooded throughout the peer group, and a node topology database consists of a collection of all PNNI topology state elements received) in a network node of a lower network level (see multicast tree in Fig. 1-4) keeps available connection data (PNNI topology state elements, or PNNI

routing information) for a closer environment, that at least one additional data bank, which keeps available connection data for a wider environment (it is inherent in PNNI that the topology database provides all the information required to compute a route from the given source node to any destination address reachable in or through that routing domain), is provided and assigned to a network node (see A, B, A.1...A.3...B.1...B.2,A.1.1...A.3.5...B.1.1...B.2.5, and that that network node of a higher network level (see multicast tree in Fig. 1-4) which is responsible for a network node to which an additional data bank is assigned, also comprises means for maintaining (it is inherent in PNNI that flooding is the mechanism used for advertising links whereby PNNI topology state elements are reliably propagated node by node throughout a peer group, and additionally, flooding ensures that all nodes in a peer group maintain identical topology databases) the connection data in this additional data bank, as recited in claim 1.

With regard to claim 3, where Chen does not expressly discloses a connection data which cannot be called up from the data bank assigned to the network node are called up from an additional data back which is assigned to another network node, it is inherent in PNNI that there is a "called up" because flooding is an ongoing activity and periodically, there is database exchanges. For example, when a node first learns about the existence of a neighboring peer node which resides in the same peer group, it initiates the database exchange process.

With regard to claim 4, where Chen does not expressly discloses a data bank that keeps available connection data for a closer environment and that the network node comprises interrogation means by which the connection data for a wider environment can be called up from an additional data bank which is assigned to another network node, it is inherent in PNNI that there is an interrogation means. For example, after a node initiates the database exchange process, and receives a database summary packet, it examines its own topology database for the presence of each PNNI topology state elements described within the packet.

With regard to claim 5, where Chen does not expressly discloses an additional data bank, which keeps available connection data for a wider environment, that is provided and is assigned to this network node or connected to the data bank provided in this network node, and that the network node comprises means whereby connection data from the additional data bank can be emitted to other network nodes upon request, it is inherent in PNNI that there is a means whereby connection data from the additional data bank can be emitted to other network nodes upon request. The PNNI hierarchy mechanism is its ability to automatically configure itself within the networks in which the address structure reflects the topology.

With regard to claim 6, where Chen does not discloses a network node that comprises means for supporting the exchange of connection data between data banks in network nodes for which this network node is responsible and data banks in other

network nodes for maintaining the respective stored data, it is inherent in PNNI that there is a means for supporting the exchange of connection data between data banks in network nodes for which this network node is responsible and data banks in other network nodes for maintaining the respective stored data. Flooding is the mechanism used for advertising links whereby PNNI topology state elements are reliably propagated node by node throughout a peer group, and additionally, flooding ensures that all nodes in a peer group maintain identical topology databases.

With regard to claim 7, Chen also discloses a lower network level (see multicast tree in Fig. 1-4).

With regard to claim 7 and 8, where Chen does not expressly disclose a lower network level whose network nodes each are provided with a data bank in which connection data for a closer environment, as recited in claim 7, and a closer environment that is the region of that group to which the respective network node belongs, as recited in claim 8, it is inherent in PNNI that the topology database provides all the information required to compute a route from the given source node to any destination address reachable in or through that routing domain) are kept available is the lowest network level.

With regard to claim 9, Chen also discloses at least one additional data bank (dynamic membership to a multicast group, col. 7, ln. 56) is provided in each group of the lowest network level (see multicast tree in Fig. 1-4).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Anbiah et al. (U.S. Pat No. 6,690,653) discloses a split-switched based PNNI hierarchy to address the current PNNI scalability of private networks but no sufficiently address building a global ATM network comprising several PNNI areas. Col. 1, ln. 21-23. Thus Anbiah uses a switch mechanism to connect between two areas that belong to two separate administrative domain. Col. 2, ln. 27-30 and ln. 40-41.

Illiadis et al. (U.S. Pat No. 6,614,762) discloses a PNNI topology abstraction. In order to compute a restrictive cost and determine logical sets of nodes, Fig. 16 illustrates the major hardware components of a node in which the inventive method can be executed.

Joens (U.S. Pat No. 6,115,753) discloses method for rerouting in hierarchically structured networks. A local alternative path within a group is established between an entering border node and an outgoing border node. Path information can be stored in an entering border node and thereby allowing the local alternative path to be established in the lowest level peer group possible.

Rochberger et al. (U.s. Pat No. 6,456,600) discloses complex node representation in an ATM PNNI network. Complex node representation in creating and maintaining a list in a peer group 50. Fig. 3A.

Rochberger et al. (U.S. Pat No. 6,473,408) discloses building a hierarchy in an ATM PNNI network utilizing proxy SVCC-based RCC entities and to find closest proxy SRCC entity 144. Fig. 7.

Rochberger (U.S. Pat No. 6,470,022) discloses a method of distributing network resources fairly between users in ATM network. Rochberger uses peer group leaders 16,26 (PGL; see also Fig. 1 and 4).

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blanche Wong whose telephone number is 703-305-8963. The examiner can normally be reached on Monday through Friday, 830am to 530pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H Pham can be reached on 703-305-4378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BW
May 14, 2004

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